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World Financial Markets

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Chart 1

U.S. spot oil price
*$ per barrel**

*West Texas Intermediate

The oil outlook

Oil prices have staged a major recovery from their lows of July 1986, when some crudes traded below $10 per barrel. Spurred most recently by the inflationary fears gripping U.S. money and commodity markets, the spot-market price of the main U.S. crude, West Texas Intermediate (WTI), approached $20 in mid-May 1987 (see Chart 1). While movements in spot and futures quotes for this premium U.S. domestic crude are important indicators of trend, their levels are not always representative of international oil prices. More representative are those of OPEC, which supplies over 60% of free-world oil imports. OPEC has dropped its netback pricing of 1986 and has reinstituted fixed official prices, based on a benchmark basket of seven crudes averaging $18. The weighted average of *all* OPEC fixed prices is around $17.

The recovery of prices began promptly on the heels of last August's announcement of OPEC's intent to resume production restraint. OPEC members cut their output 20% in the final months of 1986 and set a further 7% cut for the first half of 1987, with a ceiling of 15.8 million bpd. During the first quarter, their total output held fairly close to the ceiling, forcing some reduction in excess inventories. More members than before respected their output quotas. Crucially, Saudi Arabia cut production substantially below its quota during February and March. This successfully quelled market doubts about OPEC's resolve, which had softened spot prices and endangered official prices. Amid the recent exuberance of spot prices, there were scattered signs that OPEC production discipline had begun to fray. These were not so widespread as to place the OPEC accord on prices and quotas under serious strain, but may have helped take the bloom off the spot markets.

Looking ahead, several related questions stand out. What have been the economic effects of the 1986 drop in oil prices? What response has it engendered among consumers and producers? Has the outlook for oil demand and supply changed? Is the oil market turbulence of early 1986 likely to return? And finally, how should the United States tackle its rising reliance on imported oil?

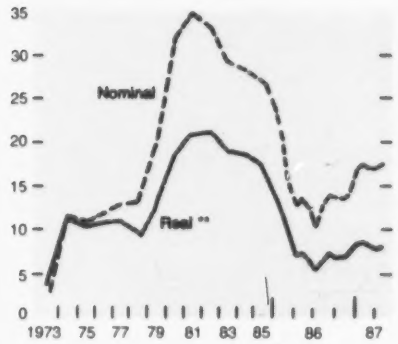
The economic setting

Oil prices peaked at nearly $36 per barrel in early 1981 (see Chart 2).

Chart 2

OPEC oil price

average price, $ per barrel*



*Average of all OPEC export oil prices including, but not limited to, benchmark crudes

**In 1974 prices; nominal oil prices deflated by the average wholesale prices of manufactures in major industrial countries in dollar terms, weighted by these countries' share of exports to OPEC in 1980

Over the next several years, until end-1985, they edged lower, but only by a cumulative $9. At an average of just under $27, 1985 prices were less than 15% below the 1981 level in real terms. But in 1986, dollar oil prices plunged more than 45%, averaging under $15. At the same time, thanks largely to the dollar's depreciation, OPEC members saw their import prices surge — by an average of over 20% in dollar terms — so that for them the 1986 oil-price decline amounted to over 50% in real terms.

Inevitably, there were major national income and balance of payments consequences. OPEC members suffered terms of trade losses averaging 13% of GNP in 1986. Their aggregate current account balance deteriorated severely, lapsing into a deficit of over $30 billion from a $6 billion surplus in 1985 (see Tables 1 and 2).* The counterpart to OPEC's experience appeared primarily as gains for the industrial countries. Their terms of trade improved some 0.8% of GNP. And despite the continued widening of the U.S. current account deficit, that of the industrial countries taken as a whole shrank from $51 billion in 1985 to $14 billion in 1986 — about equal to the deterioration in OPEC's position.

These balance of payments swings in dollar terms would have been substantially greater in the absence of significant adjustment in trade volumes. OPEC members slashed imports more than 25% in volume terms (see Chart 3), compounding cutbacks that already had exceeded 35% between 1982 and 1985. At the same time, the volume of their oil exports grew by 15% in 1986 — the first increase in six years. By these means OPEC members improved their *real* net exports by over 7% of GNP. For the industrial countries, net oil import volume grew 13%, of which the United States absorbed 70%. Reflecting the straitened income and financial position of OPEC members, the volume of industrial-country exports to them fell on the order of 25%, mostly to the detriment of Europe and Japan (see Table 3). Thus, the industrial countries lost the equivalent of 0.5% of GNP through higher net oil import volume and lower export volume to OPEC.

If the official national accounts statistics are taken at face value, the industrial countries saw real net exports to all their trade partners slide by 1% of OECD GNP in 1986.** The eroded trade positions have impaired business confidence, notably in Europe and Japan, taking toll of domestic investment. In addition, they have fed protectionist instincts, witness the U.S. instance. Worst of all, occurring in the major countries, they have helped confirm or set off the restrictive reflexes of policy-

Table 1

Current account balances

billions of dollars

	1985	*1986*	*1987*
Industrial countries	—51	—14	—19
United States	—118	—141	—135
Excluding the United States	67	127	116
Japan	49	86	85
Europe	24	53	41
Germany	15	35	28
Others	—6	—12	—10
OPEC	6	—33	—20
*Non-OPEC LDCs**	—27	—9	—12
Asia	—11	6	5
Latin America	—8	—14	—15
Others	—8	—1	—2
*Discrepancy**	—72	—56	—50

*For 1985 and 1986 derived from IMF estimates; discrepancy in all years includes Comecon.

*Three-quarters of this swing occurred among the nine OPEC members outside the Arabian Peninsula. Their oil output rose each year during 1981-85, exceeding quotas, but was flat last year. Their oil export revenues therefore fell in step with oil prices by 45%, or a total of $40 billion. The four countries of the Arabian Peninsula, especially Saudi Arabia, showed a quite different production trend. During 1981-85 their output fell in excess of 50%. Thus they absorbed the bulk of the drop in world demand for OPEC oil plus the above-quota production of the other OPEC members. In 1986, with netback pricing and no quotas during most of the year, output of the four increased over 30%. For Saudi Arabia, the shift was even more dramatic: an output recovery of more than 50% in 1986 followed a 65% drop between 1981 and 1985. With higher production offsetting much of the 1986 price decline, the combined oil export revenues of the four fell only 27%, or $14 billion. For Saudi Arabia, the revenue loss was even smaller, under 20%, and its current account deficit was little changed from 1985, at roughly $13 billion.

**Table 1 shows that, in dollar terms, the infamous "global discrepancy" in current accounts — the phenomenon whereby the official data show the world in massive deficit with itself — diminished in 1986. But in real terms, the story seems to have been the opposite. At 1980 prices, the discrepancy rocketed some $75 billion since only half the near-$150 billion recorded deterioration in OECD real net exports showed up as gains by OECD trade partners. Given the importance attached to growth statistics, this discrepancy is more than an academic curiosity warranting protracted expert study to inconclusive result. World economic growth in 1986 may be understated in the official statistics — or overstated in prior years — inasmuch as they rely on national estimates of external demand. Whether the discrepancy is attributable to OECD countries or their partners cannot be determined.

Table 2

Distribution of the OPEC current account

billions of dollars

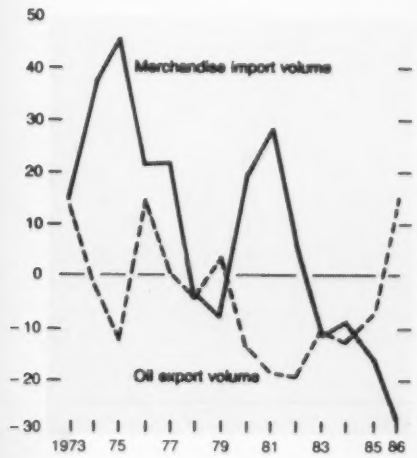
	1981	1985	1986
*Four Arabian Peninsula countries**			
Oil production, mm bpd	13.4	6.5	8.6
Oil exports	150	51	37
*Other exports***	12	10	8
*Total imports***	—113	—80	—70
Investment income, net	19	19	16
Current account	68	0	—9
*Nine other members****			
Oil production, mm bpd	10.1	10.8	10.7
Oil exports	104	85	46
*Other exports***	18	21	21
*Total imports***	—148	—94	—84
Investment income, net	2	—7	—7
Current account	—24	8	—24

*Kuwait, Qatar, Saudi Arabia, and the UAE.
**Goods and services, excluding investment income.
***Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Libya, Nigeria, and Venezuela.

Chart 3

OPEC trade volumes

percent change



makers — the reverse of the therapy appropriate for an underperforming world economy.

Last year's oil-price drop reinforced the disinflationary global climate that has prevailed since 1981. OECD consumer-price inflation fell to a 22-year low of 2.3% by end-1986. But the impetus to world economic growth once expected from lower oil prices failed to materialize, mainly because the contractionary adjustment of oil producers to shrunken revenues was much stronger than the expansionary response of consumers benefiting from lower oil prices. OECD real GNP growth has been slipping since 1984 (see Table 4). G-7 summits, supposedly keen to bolster growth, have been long on rhetoric advocating "convergence." There has indeed been convergence, but of the unhelpful variety that has limited U.S. economic growth with no constructive offset by faster growth in Japan and Europe. To the contrary, Japan's GNP growth has slowed drastically and Europe's has stayed in a rut below 2.5%, despite the domestic demand boost that both have enjoyed from lower interest rates and oil prices.

Looking to the future, the reduction of the U.S. federal budget deficit now in progress is crimping U.S. domestic demand. Still, U.S. GNP growth may edge higher on the basis of improving real net exports. But, driven now mainly by the dollar's depreciation, *real* net export trends are a powerfully negative force on GNP for Japan and Europe. Expansionary domestic demand policies would be the proven antidote. But neither Japan nor Europe — in particular, Germany — has yet seen fit to espouse them. There is therefore little basis for visualizing OECD real GNP growth above 2.3% in 1987, or 2.5% annually during the next several years. Moreover, there now is a preponderance of downside risks in the growth outlook. It is against this subdued, even recession-prone, global economic background that oil consumers and producers must develop their strategies for the years ahead.

Oil demand

In 1986 free-world oil consumption rose by 1 million bpd, or 2.2%, after contracting for six years in a row with the single exception of 1984. There also was a sharp rise in world oil inventories during 1986, so that free-world oil demand soared by nearly 2 million bpd, or over 4%.

OECD oil consumption was up 2.4% last year, reversing a minor portion of the 7.6 million bpd cumulative decline of 1980-85, when it had sagged 3.3% annually on average (see Table 5). Half the 1986 increase came from the United States, where the rise was 2.7%. The remainder came from Europe, where consumption grew 3.4%. By contrast, Japan's consumption was virtually unchanged. Aggregate LDC consumption was up 1.7%, but trends varied widely among countries. Oil exporters' consumption fell by 3% on average, as was to be expected given their much reduced economic growth. Most oil importers recorded increases: in the five largest — Brazil, India, Korea, Turkey, and Taiwan — consumption rose over 7%; this was almost twice the rate seen during the preceding two years of economic recovery, and far in excess of the average 1% annual increase recorded during 1980-85.

Industrial-countries' oil consumption outpaced the estimated 1% rise in their energy consumption last year and nearly equaled their 2.5% economic growth (see Table 6). In the preceding decade, by contrast, both OECD real GDP and energy consumption rose faster, or fell less, than oil consumption. The 1986 turn-

Table 3

Exports to OPEC

	United States	Japan	Germany	Twelve principal industrial countries*
$ billions				
1982	22.9	21.8	15.7	106
1985	12.5	13.2	8.5	65
1986	10.8	11.6	8.2	59
% change in 1986				
In dollars	—13	—12	—4	—8
In exporter's currency	—13	—38	—29	—22
Change in 1986 as % of 1985 GNP	—.04	—.37	—.40	—.17

*United States, Canada, Japan, Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, and United Kingdom.

Table 4

Real GNP

percent change

	1984	1985	1986	1987
Industrial countries	4.7	2.8	2.5	2.3
United States	6.4	2.7	2.5	2.4
Canada	5.5	4.0	3.1	2.3
Japan	5.1	4.7	2.5	2.0
Europe	2.5	2.2	2.4	2.3

around encouraged the view that an enduring revival of industrial-country oil demand was in the offing. However, for several reasons a more sober judgment is warranted.

First, part of the rise in 1986 OECD oil consumption reflected circumstances that may not be repeated unless prices fall again to the lows of 1986. In the United States, electric utilities and some other industries switched from natural gas and, to a lesser extent, coal, to take advantage of temporarily lower prices for oil. Oil's advantage was particularly pronounced in the second and third quarters of 1986 (see Chart 4). It has subsequently evaporated with the firming of oil prices and the lagged downward adjustment of natural gas prices, now leading to reversal of the fuel-switching seen last year. In Europe, part of the 1986 increase in oil "consumption" actually represented stockpiling of heating oil, especially in Germany, the largest market, during the second quarter. Although consumers later began to draw down these stocks, stockpiling may have added as much as a full percentage point to Europe's apparent oil consumption last year.

Second, and more fundamental to the medium-term prospect for oil demand, is the remaining potential for energy conservation — notably in the United States and developing countries — and for fuel substitution at oil's expense — principally outside the United States — even at current oil prices. The scope for further gains in U.S. energy efficiency is evident from the example of other industrial countries. Although the ratio of U.S. energy consumption to real GNP has declined by over 25% since 1973, it still is twice that of Europe and Japan (see Table 7). Nonetheless, except for the strong economic recovery year of 1984, U.S. energy consumption has fallen steadily since 1979. It even fell slightly in 1986, despite the decline in energy prices and moderate economic growth, with the result that energy efficiency improved some 2.6%. Although energy consumption may rise this year, it is likely to lag real GNP growth.

Transportation is the sector promising the greatest gain in U.S. energy efficiency. At present, it takes over 63% of U.S. oil consumption — and more than one-quarter of *all* oil consumed by the free world. Passenger cars in use in the United States averaged just under 18 miles per gallon (mpg) in 1985. Although this was a near-37% improvement from the 1973 low, it was well below the average of over-26 mpg for automobiles newly produced by the "Big 3" U.S. automakers, let alone the over-30 mpg average for import models. The faster the growth of real GNP, the faster the old stock of cars will be replaced. Efficiency will rise and largely offset the growth in oil use attributable to a rising car population and higher mileage driven. Other significant efficiency improvements are under way as housing and domestic appliances are replaced. In industry, competitive pressures on U.S. producers of goods and services, and heightened awareness of their need to contain costs generally, should encourage continuing energy conservation. U.S. energy efficiency further is prone to rise the more the economy tilts away from heavy manufacturing toward less-energy-intensive activities.

Compared with the conservation potential, U.S. oil substitution possibilities are smaller — although by no means exhausted. Oil's share in total U.S. energy demand fell rapidly in the aftermath of the second oil shock and decontrol of domestic prices. More recently, the decline has slowed and went into temporary reverse in 1986. At current prices, the decline should reassert

Table 5

Oil demand and supply

millions of bpd

	Level 1986	Changes 1985 from 1979	1986 from 1985	1987 from 1986
Consumption	46.6	—6.8	1.0	0.4
United States	16.2	—2.8	0.5	0.2
Europe	12.0	—2.8	0.4	—0.2
Japan	4.3	—1.2	0.0	0.1
Other OECD	2.3	—0.7	0.0	0.1
LDCs	11.8	0.8	0.2	0.2
Non-OPEC supply	28.2	6.1	0.0	0.0
United States	11.0	0.7	—0.3	—0.4
North Sea	3.7	1.5	0.1	0.1
Other OECD	3.1	0.2	—0.1	0.1
Mexico	2.8	1.4	—0.3	0.1
Other LDCs	5.7	1.8	0.3	0.2
*CPE net exports**	1.9	0.5	0.3	0.0
Stockbuilding	0.9	—1.5**	1.1**	—0.8**
OPEC production	19.3	—14.4	2.1	—0.4
of which: crude oil	17.9	—14.8	2.0	—0.4

*Centrally planned economies' net oil exports.
**Change in the rate of stockbuilding.

Table 6

Industrial countries' GDP, and energy and oil consumption

average annual percent changes

	Real GDP	Energy consumption	Oil consumption
1967-73	4.7	5.0	7.4
1974-75	0.2	—2.5	—4.3
1976-79	3.9	3.0	2.7
1980-82	0.9	—2.9	—6.6
1983-85	3.2	1.2	—0.4
1986	2.5	1.0*	2.4

*Jan-Sep.

itself in 1987 but may subsequently be limited, not least by transportation needs. Even before last year's price fall, official forecasts expected only marginal further substitution.

In both Europe and Japan energy consumption started to rise before last year's price fall. Europe's energy demand in 1985 was 5% above the 1983 low, while Japan's was up 7% from its 1982 low. Rough estimates for 1986 indicate further increases in energy consumption, of 2.5% in Europe and around 1% for Japan. These brought energy demand close to the peaks of 1979 in both. Still, on average, European energy consumption has nearly paralleled real GDP since the cyclical low, albeit with substantial variations among countries. Although most energy-consumption growth was captured by non-oil fuels during the first half of this decade, oil took about half the 1986 increase. By contrast, energy consumption in Japan has run well behind GDP and the proportion of its energy needs met by oil continued to fall even in 1986. In percentage terms, barely one-third of last year's fall in international oil prices had been passed through to Japanese consumers by year-end. Moreover, the industrial sector, which accounts for about 40% of Japan's total oil use, has entered a period of very slow growth. In electricity generation, which accounts for 30% or so of Japan's oil consumption, oil continues to be displaced in favor of coal, gas, and nuclear fuels.

Substitution offers greater promise for curbing oil use in Japan and Europe than in the United States. Because of their geography, historical dependence on imported energy, and tradition of higher energy taxes, both regions have long been more efficient energy consumers than the United States.* However, given that oil still meets a higher proportion of their total energy demand, both Japan and Europe have scope for further curbing their reliance on oil. Both have access to ample supplies of natural gas or coal and projects are under way to exploit them. Although German and Swedish interest in nuclear power is fading in favor of natural gas and coal, the French nuclear program — much the largest in Europe — continues to advance, and the British government recently gave the go-ahead for a new nuclear plant.

At current prices, new substitution initiatives in Japan and Europe may become less feverish but are unlikely to cease. For one thing, policymakers doubt that low oil prices will last. For another, as large importers of energy, these countries are strongly committed to diversification of energy sources for reasons of security. Besides, exporters of non-oil fuels to these markets are keen to maintain and expand sales. Judged by the share of energy supplied by oil, Japan has more room to adjust, but Europe's suppliers of non-oil energy are more active than their Asian counterparts. This is particularly true of the exporters of natural gas to Europe — Norway, the Soviet Union, the Netherlands, and Algeria — whose gas reserves exceed those of oil. Altogether, Europe's gas situation is as much supply- as security-driven.

Governments in both Japan and Europe will continue to stress energy diversification. Their policy instruments include higher taxes on petroleum products than on other fuels — long their standard practice;

*Although Japan and Europe — especially the smaller Mediterranean countries — still have room for further conservation gains, their most significant opportunities lie outside the oil-dependent transportation sector. Since 1973, this sector's oil use has grown by nearly 30% in Japan and 25% in Europe, now accounting for nearly 40% and over 50%, respectively, of their total oil consumption. In these countries, unlike the United States, major efficiency gains in transportation are likely to depend more on new technology than on routine automobile replacement.

Chart 4

U.S. fuel prices

prices to electric utilities

index, heavy fuel oil in 1985 = 100

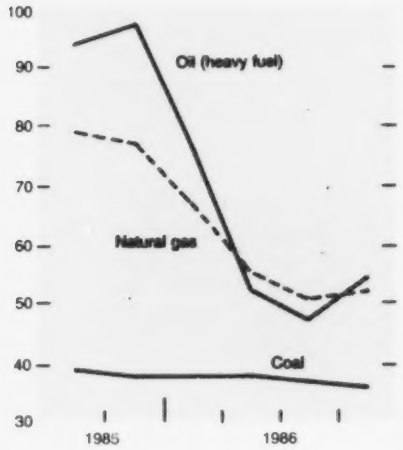


Table 7

Conservation and substitution

	1973	1979	1985	1986
Energy consumption, 1973=100				
United States	100	106	99	98
Japan	100	106	105	106
Europe	100	107	103	105
Ratio of energy consumption to GDP				
United States	144	130	108	105
Japan	75	65	50	50
Europe	71	66	58	58
Oil as % of energy consumption				
United States	47	47	42	43
Japan	77	72	55	54
Europe	61	56	46	46

a tendency in some countries to pass on to consumers a smaller proportion of oil-price declines than of increases; and habitual government fiat concerning the fuel choices of public-sector industries and utilities. Nine EC countries raised taxes last year on at least some petroleum products. Even had taxes not risen, final prices to users would have fallen less in Europe than in the United States during 1986, because Europe's taxes already were so much higher.

In most LDCs, rapid population growth, the desire for accelerated economic growth, the need to switch energy consumption away from depleting traditional sources, such as wood, plus the energy-using character of modernization and development, point to a fast-rising appetite for energy, including oil. However, appetites often go unsatisfied. Actual LDC oil consumption is likely to be restrained by sluggish LDC export prospects in a slow-growing world economy, financial problems in some of the larger LDCs, and poor domestic policies in all too many cases. Further, the raising of domestic oil prices in many LDCs during the early 1980s plus their reluctance to pass on price declines for budgetary and financial reasons should contain LDC oil consumption. In addition, some of the NICs, such as Korea and Taiwan, are adopting energy programs not unlike those of the industrial countries.

The overall implication is that free-world oil consumption — even though it will be stronger at current oil prices than at the $30 level — should grow at a subdued rate, generally below that of OECD real GDP. In 1987, with 2.3% OECD economic growth plus the reversal of the temporary factors that boosted U.S. and European oil consumption last year, the increase in free-world oil consumption may run less than half last year's 1 million bpd, or under 1%. In the first quarter of 1987 OECD consumption grew just 1%; the U.S. increase in the first four months is estimated at 1.5%. Beyond 1987, should oil prices in *real* terms remain around present levels and OECD economic growth average 2.5%, oil consumption growth could run 1%-1.5% per annum, for an additional 600,000 bpd each year on average. Should economic growth falter, the growth in oil consumption could be substantially less, or even nonexistent.

Non-OPEC oil supply

In 1986 non-OPEC oil supply failed to increase in aggregate for the first time in a decade. Most of the smaller non-OPEC LDCs boosted production, and net oil exports from the Centrally Planned Economies (CPEs) rose. But North Sea production was virtually flat and output declined in the United States, Mexico, and, to a lesser extent, Egypt. In the decade 1976-85, by contrast, non-OPEC supply grew by over 11 million bpd, an annual increment of over 1 million bpd. The North Sea contributed 30% of this increase, Mexico 20%, and the other non-OPEC LDCs 30%; the rest came from the United States and higher CPE net exports.

Since the United States accounts for 40% of total non-OPEC supply, the long-expected drop in its oil production is of central significance. The surprise lies in the size of the 1986 drop: between January and December it reached nearly 1 million bpd, leaving output of crude oil and natural-gas liquids at 9.9 million bpd by year-end. Held at that level, it would average almost 400,000 bpd less in 1987 than in 1986, a decline of 3.5%. Yet, notwithstanding the stabilization of output during the first months of this year, costs and geology point to renewed declines. Even

Table 8

Proven oil reserves
as of end-1986

	Billions of barrels	Ratio to 1986 production*
World	697	34
OPEC	478	74
Middle East	396	94
Saudi Arabia	170	95
Non-OPEC	141	17
Mexico	55	61
Other LDCs	29	15
United States	25	8
Norway	11	35
United Kingdom	9	9
Canada	7	13
Other OECD	4	12
CPEs	79	14
USSR	59	13
China	18	20
Others	2	12

*Years to exhaustion at 1986 production rate.

the tenfold price rise of the 1970s, and ensuing domestic decontrol, merely stabilized output in the lower 48 states. All of the past 10 years' increase in U.S. production came from Alaska, where output rose in 1986 but is expected to begin falling before the end of this decade. The United States, as a mature, high-cost producer, has been severely affected by the 1986 fall in oil prices, the weakening in oil-industry finances, and resulting cutbacks in exploration and development. Depending on whether oil prices rise moderately or remain at current levels in real terms, the decline in U.S. production from end-1986 levels through 1990 could reach anywhere between 500,000 and over 1 million bpd. Higher oil prices primarily would benefit U.S. natural gas production. They would alter the degree, but not the direction, of the U.S. oil output trend.

The outlook for non-OPEC oil supply outside the United States is mixed. Some of the sources contributing most to its increase over the past decade — the North Sea, CPE net exports, and Mexico — will see much smaller increases or even declines. U.K. North Sea output is peaking and a gradual, geology-determined decline is about to set in. A leveling off, or even a gradual fall, is likely in CPE net exports. Norway and Mexico have potential for further large gains in output (see Table 8) but may hold back for policy reasons. Norway is concerned about the balance of its economy and the strains that overly rapid, yet often erratic, oil-related investment places on employment and activity in the non-oil sector. In Mexico, budgetary and financial considerations limit the state oil company's development spending. Both nations are mindful of conservation and political reasons to contain the growth of oil output, and have shown some willingness — especially Mexico — to complement OPEC restraint.

The most likely source of rapid increase in non-OPEC oil supply over the next few years will be the numerous non-OPEC LDCs that are net oil importers or modest exporters. The largest such producers at present are Egypt, India, Brazil, Oman, Malaysia, and Argentina. In the future, significant increases are expected from Colombia, North Yemen, Angola, Syria, and — to some degree — Brazil. Although marginal individually, these countries' collective contribution to world oil supply may well become substantial. In the ten years to 1985, it rose almost 3.5 million bpd. It was up almost 300,000 bpd last year — nearly equaling the fall in U.S. production — and may rise another 1 million bpd by the early 1990s.

In total, non-OPEC oil supply may be about flat or at best marginally rising in the next few years. At some point, it is likely to start a gradual decline. The timing of this remains uncertain, since the rate of U.S. production decline is highly sensitive to price expectations and oil-company finances, and the extent to which OPEC will win the cooperation of nonmembers is unpredictable.

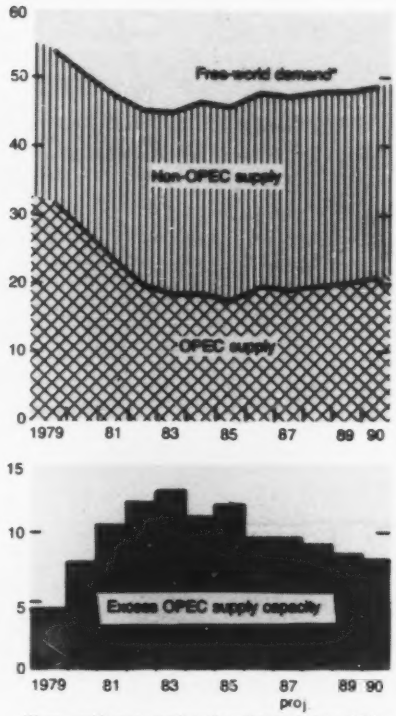
OPEC oil supply and the price outlook

OPEC oil production capacity is over 25 million bpd (see Chart 5), a massive 10 million bpd excess over its planned production rate for the first half of this year. More than 90% of the free-world's excess capacity is in OPEC hands, the Mid-East members alone holding over 70%. Moreover, the prospective longevity of Mid-East oil reserves is exceptionally large. These imbalances in actual and potential supply, together with the prospect of only modest and gradual growth in world de-

Chart 5

Long-term trends in oil demand, supply, and capacity

millions of barrels per day



*Free-world consumption plus change in inventories through 1987.

mand, are central to any assessment of the outlook and risks for oil prices. The sheer size of the existing capacity makes plain that quite a number of years must elapse before it recedes to a point that OPEC will find comfortable.

Still, OPEC members can expect gradual gains in their world market share for oil — initially, supplying the bulk of the increase in demand and, later, offsetting the fall in non-OPEC supply as well. In 1986, OPEC met the entire growth in free-world oil demand, both consumption and stockpiling, raising production by over 2 million bpd; Saudi Arabia provided 70% of the increase. OPEC covered 41% of free-world demand in 1986, versus a low of under 38% in 1985. At current oil prices in real terms, the bulk of future incremental oil imports, particularly by industrial countries, will be supplied by OPEC members. Their *crude* oil production, which is expected to average over 17 million bpd this year, may reach 20 million bpd by 1990 on an optimistic view. This outlook is the reverse of OPEC market share and output experience in the first half of the 1980s, but in line with the longer-term trend of growing world reliance on OPEC oil supply for reasons of geology and resource cost. The likelihood that the trend will reassert itself has been heightened by the 1986 fall in oil prices, notwithstanding their subsequent rebound.

Awareness of this favorable trend has helped reinvigorate OPEC. Current production cutbacks are more palatable given the expectation that demand for OPEC oil will grow in the future and progressively lessen the required restraint of output. Another discipline on present production behavior stems from the fear that Saudi Arabia may again boost its output if others cheat excessively. Thus, with the experience of 1986 fresh in mind, OPEC members now show greater determination to restrain output than in the past. Their oil export revenues dropped more than $50 billion last year, notwithstanding a 2 million bpd step-up in volume. As prices crumbled, even recalcitrant members came to see that further production increases were financially counterproductive and that they had more to gain by collective cutbacks — a realization affirmed by the strong and prompt response of spot-market prices once cutbacks were announced.

Without OPEC cooperation, oil-market turbulence would surely revive. Foremost among political risks is the unpredictable course of the Iran-Iraq war, which could provoke large and abrupt movements in oil prices in *either* direction. The downside price risks lie in the pressing revenue needs of both countries and the quota rivalries these stir within OPEC. At present, Iraq is not formally part of the OPEC quota agreement. Its rising oil production adds to world supply and may undermine the willingness of other OPEC members to curtail their output. The upside price risks lie in the possible constriction of oil supply from the Middle East, whether by physical destruction or indirectly through changes in political conditions.

No less important are the financial risks facing OPEC members. Difficulties persist despite a projected reduction of over $10 billion in their combined current account deficit this year (see Table 9). Even though OPEC oil revenues are likely to be $11 billion higher than in 1986, some members have had to cut output so deeply to defend fixed prices that they receive little net revenue benefit. Moreover, aggregate OPEC oil revenues in 1987 still will be more than $40 billion less than in 1985 and the weakness of the dollar is eroding their import purchasing power. With limited access to new external finance (see Table 10),

Table 9

OPEC current account balance

millions of dollars

	1980	1985	Est. 1986	Proj. 1987
*Exports of goods and services**	310	167	112	124
Oil	284	136	83	94
Other	27	31	30	30
*Imports of goods and services**	—210	—169	—151	—148
Balance	100	—2	—39	—24
Investment income, net	15	12	9	7
Official transfers, net	—10	—4	—3	—3
Current account	106	6	—33	—20
of which				
Four Arabian Peninsula countries	71	0	—9	—7
Nine others	35	6	—24	—13

*Excluding investment income.

Table 10

Indicators of OPEC external assets and liabilities

billions of dollars

	1985	1986 1st half	1986 2nd half
*Deposits with banks**	160	150	144
Middle East	116	108	106
Others	44	41	37
*Debt owed to banks**	111	112	116
Middle East	42	41	43
Others	69	71	73
*Net position with banks**	49	37	27
Middle East	74	67	63
Others	—25	—30	—36
Change in net position adjusted for exchange rate changes	7	—12	—11
Middle East	1	—7	—5
Others	7	—4	—6

*BIS-reporting banks, end of period data.

most OPEC members have no good choice but to maintain domestic austerity. Financial stress may test some members' determination to curtail output. Widespread indiscipline could spark a new fall in oil prices.

Less realized is the risk that financial stress on OPEC alternatively could lead to higher prices, even without strong fundamentals. OPEC members could try to compensate for their slow-growing oil exports by engineering large price increases in real terms through severe cuts in their production. Such a tactic would raise OPEC oil revenues, but only temporarily. Sharply higher prices would delay, or even prevent, the narrowing of the world oil demand/supply imbalance. Not only would oil consumption and non-OPEC supply respond directly to escalating prices, but the viability of synthetic oil substitutes and energy-saving technologies would improve — eventually perhaps stimulating the commercial application of superconductivity technology in the transportation sector.

Besides political and financial risks, OPEC faces economic forces beyond its sole control. The growth of external demand for OPEC oil is unlikely to be rapid or steady. Price-induced adjustments in oil consumption and non-OPEC supply are prone to be gradual, while OECD economic growth looks subject to downside risks. Last year's price collapse was financially damaging for all oil producers and, at the same time, turned out much less of a bonanza for economic growth than expected. Equally, much higher oil prices now would strengthen the already-ominous recessionary forces in industrial countries and could precipitate an outright fall in oil consumption, as occurred after the two oil shocks of the 1970s.

On the whole, there is much to be said for the present level of oil prices. For the first time in fifteen years, the major consumers are expressing little objection to current prices and OPEC production policies. In the future, gradual and moderate oil-price increases in nominal terms — maintaining relative stability in real terms — would be the best way to rectify global demand/supply fundamentals for oil consistent with the economic interests of both consumers *and* producers. After all, large real price movements in the past — in either direction — have proven harmful for both, especially OPEC members. Nevertheless, while the lessons of history make clear the desirability of future stability of oil prices in real terms, a happy outcome is far from certain. What is most to be avoided is the rapid escalation of prices, especially if driven by artificial restrictions rather than strong fundamentals. This would be sure to enrage the many critics of excessive industrial-country reliance on oil imports, whether alleged on financial or security grounds, and could well lead to economically wasteful policy choices.

U.S. oil concerns

The uncertainties surrounding future OPEC oil production policies and price trends stir greatest alarm in the United States — even though U.S. dependence on imported oil and energy is, and will remain, much smaller than that of most other industrial countries. Oil-related policy concerns in Japan and Europe tend to focus principally on the economic and financial costs of reliance on oil imports. Those costs play some modest role in the U.S. policy debate, but the paramount U.S. interests are national and free-world strategic security and the health of the domestic oil industry. When oil prices and U.S. oil production fell last year, U.S. political anxiety

Table 11

U.S. oil demand and supply

millions of bpd

	1985	1986	1987	1990*
Consumption	15.7	16.2	16.3	16.7
Production	11.3	11.0	10.6	9.8
*Net imports***	4.3	5.3	5.7	6.9
as % of consumption	27	33	35	41

*Based on the following assumptions: 1% annual growth in consumption during 1988-90 with 1990 production at the midpoint of the range projected by the U.S. Department of Energy.
**After stock changes.

climbed despite the lower inflation and balance of payments saving brought by lower oil prices.

As a global power, the free world's largest oil and energy consumer, and its largest — albeit high-cost — producer, the United States has a special position in oil affairs. U.S. oil import growth would be much higher than consumption growth, even were domestic production to hold its own. In fact, U.S. production is declining, by nearly 1 million bpd during the course of 1986 alone. Should it fall by another 800,000 bpd between now and 1990, a 1% annual rise in consumption would generate import increases in excess of 6% per annum (see Table 11). By 1990, on this scenario, imports would supply 40% of U.S. oil consumption — a figure prone to heighten national security anxieties — compared with just 27% in 1985. At an assumed oil price of $22 by 1990, U.S. net oil imports would be $25 billion higher than last year. This rise would impede the reduction of the outsize U.S. trade deficit, adding to the adjustment burdens on the non-oil trade sector and U.S. consumers' living standards. Of course, lower U.S. economic growth or higher oil prices would slow oil consumption, and thereby import growth, but would not halt or reverse the underlying trend.

After several years of indifference, this somber outlook has sparked belated debate about U.S. energy and oil policies. So far, most proposals focus on supply. They include opening of additional federal lands to exploration; reduction of the minimum bids acceptable for federal offshore leases from $150 per acre to $25; abolition of the Windfall Profits tax; raising the fill rate of the Strategic Petroleum Reserve; tax changes to help small oil producers; and regulatory changes to stimulate production and utilization of non-oil fuels.

Besides these generally sensible, market-oriented proposals, prominent voices are urging a stiff fee on oil imports. By raising the price of imported oil — and inevitably also of domestic oil — a sufficiently large import fee would tend to raise domestic production and curb consumption. But the attendant costs and disadvantages would be disproportionate to the likely benefits. The extent to which U.S. oil output would respond to higher prices and revenues for domestic producers is far from certain. Initial gains would be at the expense of future production — truly, a policy to "drain America first." An oil-import fee would raise domestic energy costs generally, but inequitably across regions and industries. The foreign policy and administrative implications also are daunting: there would be inevitable pressures to exempt oil imports from neighboring countries and NATO allies, not to mention imports destined for favored domestic uses; some exemptions would surely be granted, quite possibly to the point that the fee would wind up as a discriminatory tax on OPEC, a consequence with awkward ramifications of its own. At a minimum, an oil-import fee would breed a bureaucratic nightmare comparable to the price-control follies of the 1970s.

Remarkably, for a measure usually promoted for its output-boosting power, a U.S. oil-import fee would do less to raise production than to trim consumption, thanks to adverse price, income, and employment effects. The U.S. Department of Energy estimates that fees of $5 or $10 per barrel would cut twice the number of barrels from consumption that they would raise in domestic production. Almost inadvertently, therefore, an oil-import fee would address what should be the real U.S. priority — the reduction of U.S. oil consumption.

But there are less costly ways to achieve this vital end. One mechanism, with a strongly proven track record in the United States, is the government-mandated mileage-efficiency standard for new automobiles. Disturbingly, the standard was recently weakened and remains under attack in one manifestation of the complacency typical of U.S. thinking on oil consumption — a complacency evident in last year's failure to renew the energy tax credit for household conservation and the more recent relaxation of interstate highway speed limits. Although the latter action is likely to raise oil consumption only trivially, the same cannot be said of any backsliding on the auto standard.

An even more important mechanism to assure oil conservation — common in other major industrial countries, but unpopular in the United States — is to raise taxation of petroleum products, especially gasoline, to levels that deter consumption. The United States would be well advised to rethink the tax issue, since the nation's oil and energy consumption is profligate by any standard. The 63% of U.S. oil consumption used for transportation, and the lack of readily available substitutes in this sector, both argue that increased federal taxes on gasoline are the economically superior means to contain oil imports.

Quite apart from slowing the rise in oil consumption a higher federal tax on gasoline also would help reduce the federal budget deficit — provided that the additional revenue is applied to this purpose. According to the U.S. Department of Energy a 25¢ per gallon increase in the federal gasoline tax could raise federal revenues by over $150 billion and reduce the federal deficit by over $90 billion over the next seven years, cumulatively, after adjustment for the impact of such a tax on oil consumption and the economy in general.

Gasoline taxes already are being raised at the state level, not least because the impact is relatively painless now that prices at the pump are so much lower than in the early 1980s, especially in real terms. The same view should be taken at the national level, indeed more forcefully. The objection that the gasoline tax is regressive is unpersuasive: the burden of any particular tax should be appraised in the context of the overall tax and benefit structure, not in isolation. Nor, in the context of near-universal agreement that higher taxes are an essential ingredient of any realistic plan to rein in the budget deficit, can it be demonstrated that gasoline taxes have more adverse effects on GNP and employment than do other imposts.

Admittedly, raising the gasoline tax would do nothing to foster domestic oil production. Still, current U.S. production and the development of future U.S. capacity would be encouraged by the previously noted market-oriented supply measures — at least to the extent it is economically advantageous to invest in developing the limited remaining domestic sources. Seen in relation to the quest for "security" from overdependence on oil imports, the reality of the limited U.S. production potential completes the ultimately overwhelming case for stiffened taxation of U.S. gasoline consumption.

Statistical appendix

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																	
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	98.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	96.6	83.9
1986		106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1986																	
November		103.5	87.4	152.7	58.1	87.4	119.5	84.4	75.1	109.1	94.2	112.9	72.6	120.4	102.1	84.7	80.8
December		102.5	87.6	152.4	59.0	87.5	120.2	84.6	75.0	109.4	94.5	113.3	72.6	120.2	102.5	83.9	80.5
1987																	
January		98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February		96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March		96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April		94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
April	17	93.7	90.2	166.7	59.7	87.3	121.5	83.0	78.7	110.1	95.6	114.2	71.0	123.2	103.6	85.6	79.4
	24	93.9	89.4	167.6	58.8	87.1	121.2	82.9	79.0	109.9	95.5	114.0	71.2	123.8	103.1	85.7	80.9
May	1	93.3	88.7	169.0	58.0	87.0	121.6	82.8	79.6	110.0	95.5	114.2	71.2	123.9	103.4	85.5	80.5
	8	92.9	88.4	169.4	58.0	87.0	121.7	82.5	80.1	110.1	95.5	114.3	71.3	124.0	103.6	85.5	80.4
	15	93.2	88.6	169.1	58.6	87.1	121.7	81.9	80.0	110.1	95.5	114.3	71.3	123.9	103.6	85.7	80.4
	22	93.2	88.3	168.6	58.9	87.1	121.7	81.8	80.0	110.1	95.6	114.4	71.4	124.1	103.6	85.8	80.4
Real against 15 other industrial-country currencies																	
1981		100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982		109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983		112.7	102.8	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984		119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985		122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.8	92.5	98.0	101.2	99.5	96.9
1986		101.5	93.4	119.2	78.9	103.9	103.3	102.6	87.4	106.8	84.6	101.4	94.0	105.6	107.5	97.1	96.0
1986																	
November		99.0	93.9	119.2	77.8	105.4	105.4	104.5	81.5	107.4	84.3	104.5	93.6	107.9	110.3	95.7	95.8
December		98.0	94.2	118.9	79.7	105.6	105.8	105.0	81.6	107.9	84.5	104.4	93.7	108.0	110.6	94.4	96.7
1987																	
January		94.3	94.9	120.8	77.4	105.0	106.2	105.5	82.0	108.1	85.9	103.9	93.5	108.2	111.1	95.4	95.1
February		93.2	95.7	120.5	78.3	105.7	107.8	105.4	82.2	109.1	85.8	104.3	93.0	108.6	111.9	96.5	95.4
March		92.6	96.1	121.1	80.1	105.9	107.1	103.9	86.0	108.2	84.5	103.9	93.5	108.0	112.3	98.7	95.8
April		90.5	96.8	126.2	81.6	106.2	106.8	103.3	86.9	107.1	83.7	104.2	93.4	109.2	111.2	99.3	96.5
Real against 18 other industrial-country and 22 LDC currencies																	
1981		99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982		109.6	101.8	94.0	105.2	96.9	99.3	98.1	98.5	101.1	91.8	99.5	98.9	102.6	97.7	103.0	95.4
1983		114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984		120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985		124.0	99.2	101.5	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.8
1986		107.2	94.6	124.1	80.9	104.5	104.5	104.1	88.2	107.5	85.1	101.4	96.6	107.5	108.0	97.9	96.8
1986																	
November		105.3	94.9	124.4	79.8	106.5	107.3	106.6	82.8	108.7	85.3	105.0	96.6	110.7	111.0	96.6	96.8
December		104.7	95.2	124.2	81.7	106.8	107.9	107.4	83.0	109.3	85.5	105.1	97.1	110.9	111.4	95.4	96.8
1987																	
January		101.3	95.7	125.6	79.5	106.5	110.8	108.2	83.6	109.9	87.1	105.1	97.2	111.4	112.1	98.5	96.4
February		100.4	96.4	125.3	80.5	107.3	110.7	108.3	84.0	111.0	87.2	105.7	96.8	112.0	113.0	99.6	96.9
March		99.7	96.8	125.8	82.3	107.3	109.6	106.7	87.7	109.8	85.7	105.1	97.3	111.1	113.3	99.7	97.2
April		97.5	97.2	130.8	83.7	107.4	109.3	106.0	88.7	108.7	85.0	105.3	97.1	112.2	112.2	100.4	97.8

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	98.2	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.6	105.8	86.0	100.2	96.8	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.7	90.5	96.3	93.0	104.2	96.3	89.2	116.3	114.6	95.7	94.8	106.8	91.5
1986	61.0	74.5	68.7	67.7	65.1	93.8	87.2	93.9	72.3	73.9	95.2	90.2	80.3	87.3	100.9	71.1
1986																
May	60.8	72.8	68.5	68.1	65.7	90.6	89.8	95.2	80.2	75.1	92.9	88.4	79.1	88.4	101.5	71.3
June	61.3	73.0	70.3	67.7	66.6	91.9	90.2	96.1	80.4	75.4	93.1	87.4	79.3	89.5	101.9	70.8
July	61.5	72.1	69.5	66.7	65.0	92.0	89.8	91.7	78.1	70.6	91.9	87.8	78.6	89.0	100.9	69.7
August	60.9	72.1	67.9	66.0	62.3	91.8	89.7	90.3	76.6	69.7	91.5	85.7	78.5	89.0	99.4	67.7
September	58.8	72.4	67.6	65.9	60.6	93.5	90.0	92.2	61.8	70.3	91.0	86.5	78.0	84.9	100.4	67.4
October	58.8	71.6	67.7	64.9	60.5	96.7	90.7	92.2	55.4	70.6	93.0	88.1	77.5	84.6	100.8	67.6
November	59.4	72.9	68.1	64.6	60.7	100.8	92.2	94.8	56.3	71.8	94.9	89.0	78.6	85.4	102.0	65.7
December	58.7	75.9	68.0	64.5	59.7	105.1	60.4	93.5	56.0	72.0	93.2	90.0	78.5	86.7	102.1	64.6
1987																
January	56.2	75.6	65.5	65.3	60.7	107.6	52.7	89.4	54.7	70.3	91.2	87.5	76.4	85.0	94.4	63.5
February	55.6	71.3	66.2	65.6	61.2	93.4	53.2	88.9	54.6	70.8	91.4	85.8	74.8	84.6	93.3	63.2
March	53.4	71.1	66.8	65.0	61.9	96.3	53.1	89.0	53.8	72.2	90.5	85.4	74.3	87.5	94.7	64.2
April	53.3	74.4	64.4	64.5	62.9	97.5	52.8	88.8	52.3	72.5	90.1	82.1	73.2	88.8	94.8	63.7

International banking market size

at end of period, billions of dollars

	1981	1982	1983	1984	1985		1986		
					Sep	Dec	Mar	Jun	Sep
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 622**	**2 833**	**2 947**	**3 040**	**3 347**
On nonbanks	557	634	665	694	761	822	854	875	914
On banks	1 372	1 512	1 588	1 665	1 861	2 011	2 093	2 165	2 433
In dollars	1 504	1 694	1 797	1 894	2 002	2 101	2 138	2 166	2 381
In other currencies	425	452	456	465	620	732	809	874	966
Domestic currencies, on nonresidents	**365**	**398**	**402**	**402**	**451**	**508**	**535**	**578**	**633**
On nonbanks	128	132	140	142	165	187	186	201	211
On banks	237	266	262	260	286	319	349	377	422
In dollars	188	211	221	215	205	215	203	210	219
In other currencies	177	187	181	187	246	291	332	368	414
Total	**2 294**	**2 544**	**2 655**	**2 761**	**3 073**	**3 339**	**3 482**	**3 618**	**3 980**
On nonbanks	685	766	805	836	926	1 009	1 040	1 076	1 125
On banks	1 609	1 778	1 850	1 925	2 147	2 330	2 442	2 542	2 855
In dollars	1 692	1 905	2 018	2 109	2 207	2 316	2 341	2 376	2 600
In other currencies	602	639	637	652	866	1 023	1 141	1 242	1 380
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 641**	**2 846**	**2 964**	**3 059**	**3 379**
To nonbanks	372	432	479	497	546	585	610	632	662
To official monetary institutions	112	91	88	96	109	112	106	109	117
To other banks	1 470	1 645	1 711	1 793	1 986	2 149	2 248	2 318	2 600
In dollars	1 539	1 741	1 846	1 950	2 045	2 147	2 166	2 204	2 420
In other currencies	415	427	432	436	596	699	798	855	959
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**341**	**377**	**394**	**418**	**464**
To nonbanks	74	70	73	80	103	114	121	121	121
To banks	189	180	187	200	238	263	273	297	343
In dollars	126	116	135	146	159	169	166	171	191
In other currencies	137	134	125	134	182	208	228	247	273
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 982**	**3 223**	**3 358**	**3 477**	**3 843**
To nonbanks	446	502	552	577	649	699	731	753	783
To banks and official institutions	1 771	1 916	1 986	2 089	2 333	2 524	2 627	2 724	3 060
In dollars	1 665	1 857	1 981	2 096	2 204	2 316	2 332	2 375	2 611
In other currencies	552	561	557	570	778	907	1 026	1 102	1 232
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 572**	**1 678**	**1 735**	**1 800**	**1 910**

International bond issues and bank credits

millions of dollars

	1984	1985	1986	1987			Jan-Mar	
				Jan	Feb	Mar	1987	1986
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**21 575**	**21 836**	**20 096**	**63 507**	**59 925**
Australia	5 816	14 407	20 106	1 122	1 042	840	3 004	5 213
Austria	2 254	2 435	3 581	657	738	190	1 584	1 211
Belgium	1 847	3 269	4 952	697	108	210	1 015	1 788
Canada	13 124	17 184	21 633	957	882	963	2 802	4 093
Denmark	4 825	3 589	9 633	1 647	789	442	2 878	475
Finland	1 713	1 846	3 445	504	443	245	1 191	780
France	11 298	18 773	19 701	1 110	3 028	1 213	5 351	4 177
Germany	2 165	3 452	11 927	2 162	1 319	1 319	4 800	1 887
Greece	1 551	1 587	1 317	—	110	—	110	67
Ireland	1 377	1 681	4 179	—	113	—	113	664
Italy	6 933	11 033	12 962	686	480	583	1 750	2 321
Japan	17 526	21 269	35 506	2 206	3 176	4 558	9 940	5 791
Netherlands	1 973	2 299	3 579	672	452	358	1 483	1 185
New Zealand	3 208	2 707	8 078	789	438	259	1 486	1 332
Norway	1 324	3 905	6 644	782	668	1 459	2 909	600
Portugal	1 796	2 382	2 433	215	—	43	258	623
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	55	342	—	396	490
Sweden	11 256	9 890	8 020	595	934	729	2 258	4 615
United Kingdom	8 899	25 424	24 295	3 776	1 208	2 422	7 407	5 504
United States	65 054	39 193	56 774	2 084	5 054	3 930	11 067	15 635
*Other**	6 765	5 447	4 448	859	511	334	1 704	1 483
Developing countries	**39 725**	**32 139**	**24 317**	**565**	**1 748**	**1 299**	**3 612**	**6 906**
Latin American countries	**17 464**	**8 115**	**3 192**	**—**	**551**	**54**	**605**	**512**
Argentina	4 212	3 700	17	—	—	—	—	17
Brazil	6 649	—	219	—	—	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	—	—	—	—
Mexico	3 918	109	313	—	—	—	—	—
Venezuela	—	48	—	—	—	—	—	—
*Other***	1 312	2 121	2 554	—	551	54	605	495
Asian countries	**15 893**	**18 410**	**15 291**	**465**	**852**	**834**	**2 151**	**5 358**
India	945	818	1 721	25	252	262	539	686
Indonesia	1 924	451	1 358	16	175	—	191	956
Korea	6 201	5 898	3 134	25	—	145	170	1 133
Malaysia	2 605	2 219	1 328	20	65	—	84	54
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	—	—	100	100	610
Other	2 072	6 602	6 350	380	360	327	1 069	1 918
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**100**	**345**	**412**	**857**	**1 036**
Algeria	821	1 450	1 344	—	—	75	75	407
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	—	305	187	492	403
Other	3 821	2 960	1 853	100	40	150	290	226
Eastern European countries	**3 244**	**5 236**	**4 091**	**24**	**662**	**360**	**1 046**	**1 011**
Hungary	1 306	1 577	1 315	—	472	—	472	311
Soviet Union	1 051	1 489	1 821	24	190	79	293	550
*Other****	807	2 169	955	—	—	280	280	150
International organizations****	**13 287**	**20 635**	**18 916**	**2 261**	**2 303**	**1 374**	**5 938**	**6 033**
By type of instrument and currency								
International bond issues	**107 411**	**167 756**	**226 393**	**17 998**	**20 772**	**19 723**	**58 493**	**54 024**
Eurobonds	79 458	136 731	187 952	14 707	17 090	17 507	49 304	42 920
U.S. dollar	63 593	97 782	118 220	5 365	6 017	6 219	17 601	25 988
German mark	4 604	9 491	16 870	2 955	3 244	1 306	7 505	4 356
British pound	3 997	5 766	10 510	1 069	1 540	2 760	5 369	2 993
Japanese yen	1 212	6 539	18 673	1 603	3 216	3 349	8 168	4 626
European composite units	3 032	7 038	6 965	1 909	684	784	3 377	1 469
Other	3 020	10 114	16 713	1 806	2 388	3 089	7 284	3 487
Foreign bonds	27 953	31 025	38 441	3 291	3 683	2 215	9 189	11 103
U.S. dollar	5 487	4 655	6 064	450	500	600	1 550	2 264
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	109
Swiss franc	12 626	14 954	23 401	2 338	2 207	1 447	5 992	5 758
Japanese yen	4 628	6 379	4 756	248	738	—	981	2 345
Other	1 677	2 339	3 898	257	241	168	666	627
International bank credits	**125 922**	**116 964**	**91 164**	**6 427**	**5 777**	**3 406**	**15 610**	**19 851**
Eurocurrency credits	112 605	110 317	82 755	5 842	5 170	2 781	13 793	18 304
Foreign credits	13 317	6 647	8 409	585	607	625	1 817	1 546
Total	**233 333**	**284 720**	**317 556**	**24 425**	**26 549**	**23 129**	**74 103**	**73 874**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986			1987			
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Eurodollar										
overnight	9.50	8.63	12.25	5.75	6.06	22.00	6.00	5.87	6.25	6.50
one month	9.69	8.38	8.00	5.81	6.25	6.50	6.06	6.31	6.44	6.69
three months	9.81	8.63	7.88	5.81	6.00	6.25	6.12	6.31	6.50	7.00
six months	10.06	9.13	7.88	5.81	5.94	6.12	6.12	6.31	6.56	7.25
twelve months	10.38	9.81	7.94	5.88	6.00	6.12	6.12	6.37	6.69	7.62
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.06	8.19	8.00	7.37	7.12	6.87	7.37
three months	9.50	10.81	9.00	8.31	8.31	8.12	7.37	7.25	6.87	8.25
six months	9.75	10.06	9.00	8.50	8.19	8.19	7.37	7.44	6.94	8.62
twelve months	10.00	10.44	9.00	8.69	8.56	8.31	7.50	7.62	7.06	8.87
Euro-French franc										
one month	12.13	10.69	12.50	7.38	7.56	10.12	8.81	8.31	8.19	8.12
three months	12.19	10.69	13.00	7.19	8.19	10.37	8.87	8.44	8.25	8.25
six months	12.31	11.00	13.13	7.88	8.37	9.75	8.81	8.44	8.31	8.31
twelve months	12.63	11.38	12.25	7.88	8.37	8.75	8.81	8.44	8.31	8.50
Euromark										
one month	5.25	5.50	4.75	4.44	4.69	5.12	4.00	3.94	3.87	3.81
three months	5.88	5.50	4.75	4.50	4.62	4.87	4.12	4.00	3.87	3.81
six months	6.13	5.56	4.75	4.56	4.69	4.81	4.12	4.00	3.87	3.87
twelve months	6.38	5.56	4.81	4.63	4.69	4.81	4.19	4.12	4.00	4.00
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.31	5.81	6.31	5.44	5.31	5.31	5.19
three months	6.00	5.75	5.75	5.31	5.69	6.00	5.31	5.31	5.31	5.19
six months	6.25	5.81	5.81	5.31	5.56	5.87	5.19	5.25	5.31	5.19
twelve months	6.38	5.94	5.88	5.31	5.56	5.81	5.19	5.25	5.31	5.19
Euro-Swiss franc										
one month	3.38	4.44	3.88	2.94	3.87	3.94	3.25	4.19	3.25	3.25
three months	3.75	4.56	4.00	3.75	3.87	3.94	3.19	3.94	3.69	3.69
six months	3.94	4.63	4.00	3.75	3.87	3.87	3.31	3.87	3.69	3.69
twelve months	3.94	4.69	4.06	3.81	3.87	3.87	3.62	3.94	3.75	3.81
Eurosterling										
one month	9.13	9.50	11.69	10.81	11.06	11.12	11.06	11.12	10.00	9.44
three months	9.31	9.88	11.81	11.13	11.37	11.12	11.00	10.69	9.81	9.25
six months	9.50	10.00	11.81	11.13	11.37	11.06	10.87	10.37	9.69	9.12
twelve months	9.81	10.19	11.69	11.06	11.37	11.06	10.75	10.31	9.62	9.12
Euroyen										
one month	6.25	6.19	7.13	4.25	4.62	4.56	4.37	4.56	3.94	3.94
three months	6.31	6.19	6.56	4.56	4.50	4.50	4.25	4.25	4.00	3.94
six months	6.38	6.13	6.50	4.56	4.50	4.37	4.12	4.12	4.00	3.87
twelve months	6.44	6.13	6.38	4.56	4.50	4.31	4.06	4.06	4.00	3.94
European currency unit										
one month	8.81	9.25	9.63	7.44	7.56	8.56	7.62	7.44	7.16	6.94
three months	9.19	9.38	9.63	7.56	7.62	8.44	7.56	7.44	7.16	6.94
six months	9.44	9.50	9.63	7.50	7.62	8.06	7.50	7.44	7.16	7.00
twelve months	9.63	9.63	9.63	7.50	7.56	7.31	7.50	7.37	7.19	7.19

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	1985	1986				1987		
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	11.25	9.68	8.60	9.04	8.76	8.71	8.67	8.70	8.71	8.78
Euromark	6.95	6.73	6.55	6.73	6.66	6.63	6.62	6.64	6.60	6.56
Swiss franc	5.73	5.49	5.63	5.65	5.67	5.73	5.70	5.67	5.64	5.68
European governments										
Eurodollar	12.04	10.52	9.73	9.92	9.85	9.81	9.91	9.85	10.03	10.08
Euromark	7.39	7.03	6.64	6.63	6.78	6.88	6.77	6.64	6.70	6.50
Swiss franc	5.24	4.91	4.66	4.61	4.57	4.58	4.51	4.40	4.35	4.37
European currency unit	10.64	10.23	10.17	10.23	10.49	10.55	10.20	10.38	10.37	10.26

Central bank discount rates

at or near end of month

	1983	1984	1985	1986	1987				Current	
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May 29 1987	effective since
United States	8.50	8.00	7.50	5.50	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.47	7.49	7.53	7.05	8.33	8.44	May 28, 87
Austria	3.75	4.50	4.00	4.00	3.50	3.50	3.50	3.50	3.50	Jan 23, 87
Belgium	10.00	11.00	9.75	8.00	8.50	8.50	8.00	8.00	7.75	May 20, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.00	3.00	3.00	3.00	3.00	Jan 23, 87
Ireland	12.25	14.00	10.25	13.25	13.25	13.25	13.25	12.75	12.75	Apr 16, 87
Italy	17.00	16.50	15.00	12.00	12.00	12.00	11.50	11.50	11.50	Mar 14, 87
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	n.a.	n.a.	n.a.	n.a.	n.a.	Jun 6, 83
Portugal	25.00	25.00	19.00	16.00	15.50	15.50	15.00	15.00	15.00	Mar 23, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.00	9.38	11.31	10.81	10.81	10.81	9.81	9.31	8.88	May 8, 87
Japan	5.00	5.00	5.00	3.00	3.00	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	7.50	13.50	19.80	24.60	24.30	25.80	28.20	n.a.	28.20	Mar, 87
South Africa	18.50	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
Argentina*	15.10	18.19	5.00	11.19	11.53	10.76	6.25	9.00	9.00	Apr 30, 87
Korea	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	9.64	n.a.	n.a.	n.a	n.a.	n.a.	Dec, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.47	8.38	8.27	5.92	5.84	5.64	6.71	6.43	5.45	6.13	6.37
Canada	8.78	10.50	9.23	8.10	8.38	8.28	8.28	8.03	7.22	7.16	7.10
Austria	5.75	7.63	7.25	5.50	5.37	5.00	7.62	4.25	4.25	4.12	4.25
Belgium	7.39	9.12	6.60	5.76	6.26	5.81	5.09	7.75	6.90	6.22	6.28
Finland	16.70	15.07	11.96	13.86	11.93	11.80	11.97	11.99	11.76	11.44	11.14
France	12.27	10.95	9.01	7.08	7.31	7.28	7.28	8.80	8.38	7.80	8.03
Germany	5.61	5.62	4.64	4.39	4.41	4.45	5.00	4.24	3.84	3.87	3.74
Ireland	12.19	14.50	9.62	9.63	11.00	13.13	13.00	13.36	13.94	13.75	n.a.
Italy	17.88	17.25	14.75	11.25	10.98	9.67	11.42	11.88	11.81	11.22	10.56
Netherlands	5.84	5.60	5.75	5.31	5.38	5.60	6.19	6.20	5.31	5.56	5.19
Norway	12.30	12.50	12.40	14.00	14.00	14.00	14.00	n.a.	n.a.	n.a.	n.a.
Spain	16.98	12.18	9.92	11.58	11.68	11.69	11.76	12.21	12.47	14.43	17.32
Sweden	11.52	11.88	11.83	8.92	8.51	8.64	8.89	9.09	12.00	12.00	10.00
Switzerland	1.88	1.50	2.00	2.00	1.00	1.00	1.12	1.00	1.00	1.00	1.75
United Kingdom	7.78	6.31	9.72	8.06	11.19	10.62	9.19	11.06	10.88	10.30	9.61
Australia	4.55	10.98	18.37	17.22	17.13	16.21	15.40	15.73	16.22	16.14	14.50
Japan	6.44	6.41	8.02	4.63	4.41	3.77	4.18	4.09	4.05	3.86	3.48
South Africa	16.06	21.13	12.50	9.63	9.63	8.87	8.50	9.00	8.50	8.37	8.31
Argentina*	14.65	17.75	4.50	6.00	7.00	7.00	7.00	7.00	4.00	5.32	5.50
Brazil	184.69	272.02	352.23	45.58	44.24	55.55	83.05	270.00	412.00	408.00	853.00
Hong Kong	13.90	6.80	6.10	4.93	3.21	4.15	3.90	2.78	1.97	3.76	4.11
Korea	11.40	10.00	8.80	9.50	9.30	9.30	9.00	8.50	8.60	8.80	8.40
Philippines	31.18	15.22	15.03	11.72	8.42	7.98	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	2.26	2.47	2.62	3.51	3.10	3.22	2.24	3.31
Taiwan	7.65	8.07	4.50	3.50	3.50	3.60	3.00	3.25	3.25	3.10	3.50

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.28	7.99	7.25	5.30	5.25	5.44	5.73	5.66	5.49	5.76	5.61
Canada	9.71	9.84	9.24	8.35	8.30	8.24	8.22	7.24	7.28	6.80	8.08
Belgium	11.00	10.90	9.89	7.45	7.48	7.45	7.50	7.99	7.86	7.50	7.35
Ireland	12.01	15.10	11.15	10.61	13.79	14.22	13.60	13.91	13.67	13.51	n.a.
Italy	16.29	14.19	12.70	10.34	10.13	10.00	10.00	9.94	9.74	9.66	9.60
Netherlands	5.63	5.88	5.69	5.63	5.38	5.81	6.37	5.94	5.88	5.44	5.31
Spain	14.46	12.00	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	8.66	8.44	9.05	9.20	10.25	10.80	10.31	9.25
United Kingdom	9.04	9.33	11.49	9.93	10.85	10.96	10.75	10.56	10.47	9.54	9.39
Australia	8.54	12.27	19.40	17.51	16.18	15.49	14.91	16.64	16.32	15.47	14.00
Japan	4.91	4.91	4.91	3.39	3.39	2.89	2.89	2.89	2.89	2.38	2.38
New Zealand	7.80	13.50	17.62	15.36	16.00	16.44	19.69	22.36	25.38	24.70	25.29
South Africa	18.43	21.94	12.99	9.20	9.17	8.62	8.84	8.77	8.78	8.26	8.60
Brazil	179.15	273.03	379.77	42.00	45.00	33.00	149.00	276.40	n.t.	n.t.	n.t.
Mexico	53.78	48.67	72.98	n.t.	n.t.	103.77	104.03	104.64	104.83	100.66	99.01
Philippines	15.99	47.14	16.45	12.75	12.58	11.32	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.01	1.99	1.93	2.10	2.19	1.67	1.93	2.12

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.89	8.34	8.01	5.96	6.99	5.96	8.04	6.97	6.24	6.70	6.98
Canada	9.87	10.10	9.45	8.50	8.50	8.35	8.20	7.55	7.45	7.05	8.30
Belgium	11.15	10.85	9.89	7.35	7.50	7.50	7.60	7.86	7.81	7.50	7.40
France	12.19	10.69	9.12	7.43	7.50	7.60	8.37	8.50	8.25	7.87	8.00
Germany	6.30	5.75	4.80	4.40	4.60	4.65	4.85	3.90	3.85	3.85	3.80
Ireland	12.19	15.13	12.00	11.25	14.00	14.44	14.06	14.12	14.25	13.37	n.a.
Italy	17.88	16.88	15.13	10.62	11.00	11.12	11.37	11.37	11.12	10.12	10.00
Netherlands	6.00	5.75	5.75	5.44	5.44	5.81	6.19	5.44	5.50	5.55	5.31
Portugal	24.11	24.57	20.71	15.96	15.96	15.93	16.07	14.95	14.94	14.96	n.a.
Spain	19.00	12.21	10.51	11.53	11.41	11.52	11.79	12.35	12.60	14.60	17.09
Switzerland	3.88	5.00	4.75	4.25	4.19	4.00	4.50	3.75	4.00	3.87	3.75
United Kingdom	9.31	9.88	12.75	10.38	11.12	11.44	11.25	11.12	10.19	10.06	9.25
Australia	9.05	12.90	19.75	17.85	16.45	15.90	15.10	16.40	16.60	16.27	14.52
Japan	6.45	6.33	7.03	4.75	4.54	4.43	4.34	4.22	3.96	3.98	3.89
New Zealand	11.75	15.00	20.00	16.50	16.50	16.50	24.25	23.60	25.15	25.60	25.70
South Africa	19.12	22.78	13.35	9.55	9.65	8.90	8.55	9.20	9.05	8.40	9.10
Chile	20.68	20.68	22.42	12.68	20.98	20.98	19.56	25.34	25.34	23.87	22.42
Hong Kong	14.88	8.25	6.50	5.25	4.38	4.44	4.62	3.44	4.37	4.87	5.50
Indonesia	19.50	19.00	15.00	14.50	14.25	14.50	19.50	16.50	16.00	17.00	16.50
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	12.00	9.50	6.70	6.00	5.30	3.30	2.60	2.70
Philippines	15.61	33.21	14.61	9.89	11.19	10.31	8.31	8.34	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	3.25	2.94	3.19	3.94	3.34	3.31	3.26	3.73
Taiwan	8.07	7.85	4.10	2.65	2.65	2.86	n.a.	n.a.	n.a.	n.a.	n.a.
Thailand	16.00	12.00	15.50	7.50	7.50	7.75	7.75	7.75	7.75	7.75	7.75

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.70	8.35	7.75	5.80	5.75	5.78	6.30	6.00	6.13	6.30	6.80
Canada	9.82	10.05	9.40	8.45	8.45	8.30	8.15	7.50	7.40	7.00	8.25
Austria	6.50	7.50	6.50	5.75	5.62	5.37	5.50	5.12	4.75	4.50	4.37
Belgium	11.25	10.63	9.63	7.25	7.31	7.37	7.44	7.75	7.69	7.37	7.19
Denmark	6.00	8.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.40	4.50	4.60	4.80	4.70	3.90	3.95	3.95
Ireland	11.75	14.63	11.87	10.50	12.00	14.12	13.75	14.00	14.00	13.25	n.a.
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.31	5.31	5.69	6.06	5.31	5.37	5.37	5.25
Norway	12.75	12.75	12.00	13.00	13.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	15.50	15.00	15.00	15.00	15.00	15.00	14.50	n.a.
Spain	12.62	11.64	9.64	8.78	8.78	8.65	8.67	8.54	8.57	8.58	n.a.
Sweden	11.70	11.45	12.18	9.27	8.83	9.85	9.93	10.30	11.00	10.75	9.75
Switzerland	3.50	4.50	4.50	4.00	3.94	3.75	4.25	3.50	3.75	3.62	3.50
United Kingdom	9.31	9.88	11.75	10.37	11.13	11.25	11.19	11.00	10.59	9.84	9.25
Australia	10.40	12.75	18.80	17.82	16.71	15.73	15.56	15.73	16.62	16.19	15.00
Japan	6.40	6.38	7.05	4.95	4.63	4.65	4.55	4.16	4.17	4.20	4.11
New Zealand	11.75	15.25	19.98	15.50	16.60	19.00	23.50	22.72	23.70	23.30	23.85
South Africa	20.13	22.88	13.20	9.50	9.75	9.25	8.65	9.50	9.25	8.75	9.15
Argentina*	14.50	31.23	5.40	6.94	7.65	7.97	8.41	8.81	4.43	4.86	7.17
Brazil**	23.00	27.00	18.00	44.00	49.00	85.00	220.00	400.00	32.00	30.00	24.00
Chile	20.57	20.68	23.60	16.49	20.70	20.27	20.98	26.97	27.42	24.31	25.93
Hong Kong	14.88	8.25	6.50	5.25	4.38	4.44	4.62	3.44	4.37	4.77	5.50
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	6.42	6.33	4.63	4.66	2.33	2.43
Mexico	57.15	47.45	72.90	94.30	94.30	94.30	94.30	94.30	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	9.77	9.35	9.55	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	3.19	2.88	3.13	3.63	3.19	3.32	3.32	3.63
Taiwan	7.00	6.50	5.25	4.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

*Percent per month. **Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	12.00	11.61	9.49	7.95	7.81	7.69	7.79	7.17	7.62	7.90	8.51
Canada	12.02	11.66	10.04	9.44	9.53	9.26	9.23	8.94	9.10	8.98	9.82
Austria	8.02	8.04	7.61	7.06	7.25	7.36	7.33	7.25	7.05	6.93	6.86
Belgium	11.89	11.56	9.60	7.36	7.31	7.41	7.70	7.57	7.57	7.64	7.66
Denmark	12.96	14.60	9.67	11.11	11.16	11.80	11.70	11.33	12.63	12.23	n.a.
Finland	11.16	10.73	10.58	7.75	7.90	7.74	7.80	7.78	7.82	7.89	7.77
France	13.96	12.70	11.33	8.51	8.97	9.49	9.89	9.54	9.84	9.42	9.51
Germany	8.38	7.17	6.57	6.26	6.44	6.33	6.25	6.20	6.26	6.12	5.98
Ireland	14.25	14.90	11.84	12.46	13.65	13.49	13.97	12.97	11.16	12.41	n.a.
Italy	17.69	14.52	13.66	10.42	10.25	10.33	10.05	9.78	9.84	10.03	10.08
Netherlands	8.58	7.72	6.96	6.04	6.22	6.30	6.40	6.21	6.15	6.22	6.12
Norway	12.50	12.00	13.10	13.40	13.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	11.10	10.15	10.29	10.36	10.74	10.59	10.95	12.04
Sweden	12.30	12.04	12.11	9.49	9.31	10.35	10.66	11.70	11.23	10.70	11.07
Switzerland	4.53	4.60	4.42	4.17	4.09	4.07	4.05	3.93	4.01	4.11	4.12
United Kingdom	9.94	10.25	10.35	10.31	10.40	10.58	10.17	10.64	9.51	9.15	8.87
Australia	13.65	13.50	14.85	13.85	13.60	13.60	13.40	13.80	14.00	13.45	13.05
Japan	6.94	6.30	5.82	5.00	4.85	4.73	4.61	4.25	3.96	3.72	3.42
New Zealand	10.50	16.90	17.00	15.35	15.18	16.00	15.85	16.20	16.80	16.20	15.85
South Africa	13.64	16.55	18.09	15.24	15.83	14.13	15.08	15.33	15.30	14.66	15.30
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	11.00	10.75	9.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.75
Canada	11.00	11.25	10.00	9.75	9.75	9.75	9.75	9.25	9.25	8.75	9.25
Austria	9.25	9.25	9.00	9.00	9.00	9.00	9.00	9.00	8.75	8.75	8.75
Belgium	13.75	14.00	11.50	9.75	9.75	9.75	9.75	10.75	10.25	9.75	9.75
Denmark	10.00	10.50	8.50	8.00	8.00	8.00	8.00	9.50	10.00	10.00	10.00
Finland	10.18	10.68	10.37	8.77	8.75	8.74	8.81	8.81	8.80	8.84	n.a.
France	12.25	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.25	6.25	6.25
Ireland	13.75	15.75	12.50	12.25	15.75	15.75	15.75	15.75	15.75	15.75	n.a.
Italy	18.75	18.00	15.88	13.00	13.00	13.00	13.00	13.00	13.00	12.50	12.50
Netherlands	7.00	6.25	6.25	5.88	5.88	6.12	7.12	6.12	5.75	5.87	5.75
Norway	13.50	13.00	12.40	15.75	15.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	18.00	17.50	17.50	17.50	17.50	17.50	19.50	n.a.
Spain	17.31	15.84	14.75	14.29	14.25	14.23	14.22	14.24	14.24	14.57	15.23
Sweden	13.50	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.25	5.25	5.25	5.00
United Kingdom	9.00	9.50	11.50	10.00	11.00	11.00	11.00	11.00	11.00	10.00	9.50
Australia	12.75	14.00	21.00	19.00	19.00	18.50	18.25	18.00	18.25	18.25	17.60
Japan	5.89	5.70	5.71	4.48	4.48	4.45	4.35	4.28	4.24	n.a.	n.a.
New Zealand	11.00	14.00	21.00	17.00	18.50	18.50	18.50	24.00	25.00	27.00	29.00
South Africa	20.00	24.00	16.50	13.50	13.50	13.50	12.00	12.50	12.50	12.50	12.50
Argentina*	15.50	32.05	7.30	8.62	8.70	8.85	11.30	9.85	5.45	5.71	9.20
Brazil**	24.00	31.00	19.00	46.00	51.00	88.00	250.00	440.00	45.00	40.00	37.00
Chile	30.90	60.82	33.34	23.51	27.20	29.13	29.13	33.57	36.07	34.48	36.07
Hong Kong	13.50	11.00	7.00	6.50	6.50	6.50	6.50	5.00	5.00	6.00	6.50
Indonesia	19.75	23.50	18.75	18.75	18.25	18.25	19.75	20.50	19.50	19.50	19.25
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.00	9.00	9.00	9.00	8.50
Mexico	56.44	47.54	65.66	87.72	91.48	94.19	95.33	95.89	96.20	96.25	95.79
Philippines	18.00	44.00	15.00	13.00	12.00	11.00	10.00	n.a.	n.a.	n.a.	n.a.
Singapore	8.98	9.40	7.20	6.45	6.28	6.10	6.10	6.10	6.10	6.10	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	12.63	12.25	10.15	9.00	9.00	8.88	8.88	8.50	8.55	8.65	9.60
Canada	12.89	12.42	10.74	10.32	10.39	10.21	10.18	9.67	9.90	9.79	10.28
France	14.35	12.94	11.76	8.92	9.36	9.77	10.18	9.92	10.06	9.79	9.72
Germany	8.30	7.20	6.90	6.30	6.40	6.60	6.50	6.50	6.40	6.60	6.50
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	15.50	15.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	20.07	18.32	14.92	13.38	13.24	13.61	13.40	13.72	14.13	14.82	15.36
Sweden	12.21	12.33	13.25	10.82	10.77	11.72	11.99	13.00	12.63	12.15	12.15
Switzerland	4.92	5.09	4.93	4.77	4.73	4.71	4.72	4.62	4.56	4.58	4.57
United Kingdom	11.57	11.64	11.47	10.34	11.58	11.43	11.71	11.30	10.58	10.21	10.09
Japan	7.49	7.11	6.79	6.10	6.18	6.05	5.93	5.46	5.35	5.20	n.a.
Korea	14.20	15.00	13.60	12.80	12.80	12.70	12.80	12.60	12.70	12.80	12.80
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00